Claims

1. Method for examining vessels, in particular of an eye, by means of laser scanning,

characterized in that the vascular wall thickness, particularly of retinal vessels, is

5   determined, whereby the exterior diameter and the interior diameter of said vessel

are determined by means of scanning laser Doppler and the wall thickness of said

vessel is determined from the data determined in this manner.

2. Method in accordance with claim 1, characterized in that said exterior vessel

diameter is determined from data for a reflectivity image.

10   3.ʻ Method in accordance with claim 1 or 2, characterized in that said interior

diameter is determined by determining the diameter of the moved blood column,

in particular from data for a laser Doppler image.

4. Method in accordance with any of claims 1 through 3, characterized in that

said vascular wall thickness is determined by finding the difference between data

15   collected in a reflectivity image and data collected in a laser Doppler image.

5. Apparatus for performing the method in accordance with claims 1 through 4,

characterized in that a scanning laser Doppler system is provided, by means of

which a reflectivity image of said vessel, in particular its exterior diameter and/or

data corresponding to the vessel exterior diameter, can be produced, and a laser

20   ₋ Doppler image, in particular of said moved blood column and/or of said interior

vessel diameter and/or data corresponding thereto, can be produced, and in that an

evaluation unit is provided for determining the vascular wall thickness from the

images and/or data determined in this manner.

6. Apparatus in accordance with claim 5, characterized in that said evaluation
unit is embodied as a computer, by means of which said vascular wall thickness
can be determined from the aforesaid images and/or data, preferably by correlation

5   or by finding the difference.